

SVIRIDOV, Yu.A.

Some defects of the RP1-PD controllers. Priborostroenie
no.6:22-23 Je '64. (MIRA 18:3)

SVIRIDOV, Yu.A.

Method of increasing control quality of thermotechnical parameters
of continuous action units. Priborostroenie no.12:30-31 D '64.
(MIRA 18:3)

SVIRIDOV, Yuriy Aleksandrovich

[Automation of heating furnaces] Avtomatizatsiia nagrevatel'nykh pechei. Moskva, Metallurgiya, 1965. 138 p.
(MIRA 18:3)

SVIRIDOV, Yu. B.; SOKOLIK, A. S.; VOINOV, A. N.

"Introduction and Table of Contents for the Article, "The Influence of Chemical and Turbulent Factors on the Combustion Process under Motor Conditions," *Izvestiya Akademii Nauk SSSR, Otdeleniye tekhnicheskikh Nauk*, No 12, 1949.

Translation- W-13951, 27 Sep 50

SVIRIDOV, YU. B., SOKOLIK, A. S., VOYNOV, A. M.

Gas and Oil Engines

Problems of combustion phases in engines. Izv. AN SSSR Otd. tekhn. nauk no. 4, 1952.

Monthly List of Russian Accessions. Library of Congress, November 1952. Unclassified.

SOKOLIK, A.S.; VOINOV, A.N.; SVIRIDOV, Yu.B.

Problem concerning combustion phases in an engine. Izv.AN SSSR Otd.tekh.
nauk no.5:783-786 My '53. (MLR 6:8)

(Gas and oil engines)

SOKOLIK, A.S.; VOINOV, A.N.; SVIRIDOV, Yu.B.

Editorial. Discussing A.S.Sokolik's, A.N.Voinov's and Yu.B.Sviridov's article "Effect of chemical factor and of the factor of turbulence on the combustion process in an engine." Izv.AN SSSR Otd.tekh.nauk no.5:786-787 My '53. (MLRA 6:8)

(Gas and oil engine) (Sokolik, A.S.) (Voinov, A.N.)
(Sviridov, Yu.B.)

SETRIDOV YU. B.

1195. Setridov, Yu. B., Characteristics of turbulent burning
in Russia, ~~USSR~~ USSR ~~Doc~~ Doc ~~no~~ no 11, 1577-
1587, Nov. 1963.

The author examines the characteristics of turbulent burning in a gas mixture of methane and air. The results of experiments are presented for the flame speed, the flame structure, and the flame stability. The flame speed is found to increase with increasing turbulence intensity and with increasing initial temperature of the mixture. The flame structure is characterized by the presence of a thin reaction zone. The flame is stable over a wide range of turbulence intensities and initial temperatures.

Date prepared: 10/5/55
Date processed: 10/5/55
Inventor: Setridov, Y. B.

10/5/55
CW

GANKIN, K.I.; SVIRIDOV, Yu.B.; KHMEL'NITSKIY, A.P., otvetstvennyy redaktor;
KLANNIKOV, B.M., redaktor izdatel'stva; MOSKVICHEVA, N.I., tekhnicheskii redaktor

[Internal combustion piston engines; proceedings of a conference on piston engines] Porshnevye dvigateli vnutrennego sgoraniia; trudy konferentsii po porshnevym dvigateliam. Moskva, 1956. 352 p.

(MLRA 9:9)

1. Akademiya nauk SSSR. Laboratoriya dvigateley.
(Gas and oil engines) *motors*

Sviridov, Yu. B.

26(1,4) PHASE I BOOK EXPLOITATION SOV/2396

Academiya nauk SSSR. Laboratoriya dvigateley

Teoriya, konstruktsiya, raschet i ispytaniya dvigateley vnutrennego sgoraniya (Theory, Construction, Design, and Testing of Internal Combustion Engines) Moscow, Izd-vo AN SSSR, 1957. 209 p. (Series: Iti: Trudy, vyp. 3) Errata slip inserted. 4,000 copies printed.

Ed. of Publishing House: V. M. Klenikov; Tech. Ed.: A. A. Pavlovskiy; Editorial Board: M. D. Apashev, Doctor of Technical Sciences, K. G. Yegorov, V. A. Litvinov, Candidate of Technical Sciences, and Yu. B. Sviridov, Candidate of Technical Sciences.

PURPOSE: This book is intended for technical personnel working with internal combustion engines.

COVERAGE: This collection of scientific papers deals with internal combustion engines. The book is divided into three parts. The first part deals with gas turbines, the second with reciprocating internal combustion engines, and the third with methods and equipment for investigations. No personalities are mentioned. References follow each article.

Apashev, M.D. Heat Capacity of Industrial Gases 65
The author discusses the dependence of heat capacities of gases on temperature and pressure. On the basis of the principles of theoretical thermodynamics he derives equations for calculating correction values for heat capacities at high temperature and pressure.

Sviridov, Yu. B. Effect of Combustion Process Parameters on the Indicated Characteristics of an Engine 95
The author compares indicator diagrams and discusses theoretical efficiencies of an actual cycle of diesel and spark-ignition engines. He also presents a method for calculating combustion losses and determining the most efficient spread of the combustion process in a cycle.

Rachinsky, A.Y. [Candidate of Technical Sciences]. Some Characteristics of Carburetor-engine Charging. Some 108
In a theoretical investigation the author compares the charging process of a carburetor engine with the charging process of an engine of identical construction, differing only in that it has a fuel-injection system.

Shargov, K.A. Standardization of Automotive Engines Using Different Types of Fuel 116
The purpose of this article is to establish bases for the standardization of gasoline, diesel, and gas automotive engines. Parameters of Soviet and non-Soviet automotive engines are investigated.

Afeykhin, B.J., and M.D. Apashev. A Method of Combined Investigation of Flame Propagation and Pressure Change in a Spark-Ignition Engine 155
The authors describe a method and the results of an experimental investigation of the variation of pressure and propagation of the flame front in the engine cylinder during combustion. The investigation was conducted at the Engine Laboratory of the Academy of Sciences, USSR. The results show that at the moment of maximum pressure in the cylinder the complete charge was ignited.

Sviridov, Yu. B. Thermodynamic Analysis of the Combustion Process in a Spark-Ignition Engine 164
The author derives the thermodynamic equation of the dynamics of combustion during propagation of the flame over the working substance. He describes the temperature field in the combustion chamber and its variation during the combustion process. He also presents an analytical method and an example for calculating various parameters of the indicator diagram.

3 VIKH-1, 74-13.

STECHKIN, B.S., akademik; MIKHAYLOV, A.I., professor, doktor tekhnicheskikh nauk; SVIRIDOV, Y. B. kandidat tekhnicheskikh nauk.

On the occasion of the eightieth birthday of Nikolai Romanovich Briling, corresponding member of the Academy of Sciences of the U.S.S.R. Trudy Iab.dvig. no.3:3-8 '57. (MIRA 10:7)
(Briling, Nikolai Romanovich, 1876-)

SVIRIDOV, Yu.B., kandidat tekhnicheskikh nauk.

Thermodynamic analysis of the combustion process in engines
with spark ignition. Trudy Lab.dvig. no.3:164-193 '57.
(MLRA 10:7)

(Gas and oil engines)

Sviridov, Yu. B.

20 (1.1) PHASE I BOOK EXPLANATION 307/2543
Akademiya nauk SSSR. Laboratoriya dvigatelya
Teoriya, konstruktivnaya, raschet i ispytaniye dvigateley vnutrennego
sopromota (Theory, Design, Calculation, and Testing of Internal
Combustion Motors) Moscow, Izd-vo AN SSSR, 1958. 174 p. (Series:
Itar. Trudy, vyp. 4) Kratka slup inserted. 3,000 copies printed.
Ed. of Publishing House: V.M. Klenikov; Tech. Ed.: T.A. Prusakova;
Editorial Board: M.D. Apashov, Doctor of Technical Sciences, M.M.
Zagryazkin, Candidate of Technical Sciences, Yu. B. Sviridov,
Candidate of Technical Sciences, S.Z. Izrantsev, Engineer, and
L.G. Yevgrafov, Engineer.

PURPOSE: This book is intended for workers of scientific research
institutes, students of higher technical schools, and for
design bureaus and to provide a summary of experimental information
on the thermodynamics of internal combustion engines.

COVERAGE: This collection consists of 14 articles based mainly on
research work done by the author in 1955-1956. Part I is devoted
to working processes in gas turbine power plants and to theoretical
and experimental work connected with investigation of the flow
of gases. Part II contains articles on the investigation of pro-
cesses in piston engines. Part III deals with the measurement of
high temperatures of gases. The collection is number 4 of the
Transactions of the Engine Laboratory of the Academy of Sciences,
USSR. No personalities are mentioned. There are no references.

10. Dnestrinskiy, A.P. [deceased], and Yu. B. Sviridov. Develop-
ment of Air-Cooled Engines in Czechoslovakia. 93
Descriptions and technical data for 8 types (T-87, T-11A,
T-11B, T-912, T-600, T-603V, T-603S) of the Tatra air-cooled
engines are given. Vector air cooling systems are explained
at some length.

11. Sviridov, Yu. B., and B.A. Zuyev. Flame-pilot Ignition in
Small Engines 108
The article is concerned with the comparison of flame-pilot
ignition and normal ignition. A diagram of the experimental
assembly is given. Results are shown on graphs and by for-
mulas. There are 4 Soviet references.

12. Vasil'yev, B.M., and L.G. Gavrilov. Friction of Parts in the
Piston Component of the GAZ-20 Engine 124
Mechanical losses in automobile engines of type GAZ-20 were
investigated in the Engine Laboratory of the USSR Academy of
Sciences in cooperation with the Gorky Automobile Plant.
Data are given in the form of tables and graphs. Tests were
made to improve future engine design. There are 4 references:
3 Soviet, and 1 English.

13. Shumakov, K.A. Unification of Transport Engines Operating
on Various Types of Fuel. Part II. Justification for Establish-
ing Unified Engine Families 137
This article is the second part of an article published in
Trudy laboratorii dvigatelya, No. 3. On the basis of the ana-
lysis in this article the author concludes that the unifica-
tion of engines of various powers and operating on various
fuels is indicated from the point of view of production, con-
venience in operation and general economy.

PART III. METHOD AND APPARATUS FOR INVESTIGATIONS
14. Zagryazkin, M.M., and B.M. Evvelin. Method of Stationary 167
Measurement of High Temperatures of Gases
The author defines temperature measurement, deduces equations
at the ideal curve of heating, describes the construction and
experimental verification of the instrument. The author
concludes that the method of nonstationary measurement of high
temperatures is based on the possibility of calculating the
true temperature of a gas by the temperature curve of the
flow indicated by a thermocouple.

SVIRIDOV, Yu.B.; ZUYEV, B.A.

Jet ignition in light engines. Trudy Lab.dvig. no.4:108-123 '58.

(MIRA 12:11)

(Gas and oil engines—Ignition)

SOV/24-58-4-27/39

AUTHORS: Ryabov, D. I. and Sviridov, Yu. B. (Moscow)

TITLE: Investigation of Some Fundamentals of Combustion of Atomised Motor Fuels (Issledovaniye nekotorykh osobennostey goreniya raspylennykh motornykh topliv)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 4, pp 133-137 (USSR)

ABSTRACT: The paper is a continuation of Sviridov's previous work (Refs 3 and 4), who (Ref 3) suggested that there are three types of combustion of atomised fuel, and the present experiments were carried out to test this suggestion. The apparatus (Fig 1) consisted of a diesel cylinder with subsidiary equipment enabling the initial temperature and air pressure to be accurately regulated. Measurements were made with the aid of a precision manometer for measuring the initial pressure, an optical indicator for recording time, pump revolutions and duration of fuel injection, and special thermocouples to indicate the temperature field in the combustion chamber and the air temperature before ignition. Diesel fuel, tractor kerosene and aviation benzine were all studied.

Card1/2 Curves are given showing the variation of ignition retardation and duration of combustion for different

SOV/24-58-4-27/39

Investigation of Some Fundamentals of Combustion of Atomised
Motor Fuels

mixtures and pressures. It is concluded (1) that at low temperatures ignition has a chemical character and combustion consists of the propagation of a "normal" flame; (2) at high temperatures, ignition is determined by a mixing process and combustion by the propagation of a diffusion flame; (3) at medium temperatures with retarded ignition, a rapid "explosive" combustion occurs. Thanks are expressed to N. R. Briling for supervision. There are 9 figures, 1 table and 4 Soviet references.

SUBMITTED: September 2, 1957

Card 2/2

SOV/30-58-9-44/51

AUTHOR: Sviridov, Yu. B., Candidate of
Technical Sciences

TITLE: Combustion and Formation of the Mixture in Diesel Engines
(Sgoraniye i smeseobrazovaniye v dizelyakh) Conference
in Moscow (Konferentsiya v Moskve)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 9, pp. 115 - 117 (USSR)

ABSTRACT: The Laboratoriya dvigateley Akademii nauk SSSR (Engine
Laboratory of the AS USSR) convened a conference which took
place from June 10 to June 12. Apart from Soviet scientists
from various cities of the USSR scientists from China, the
German Democratic Republic and Czechoslovakia participated
in the conference. Theoretical, experimental and methodical
problems were treated. The following reports were delivered:
I.I. Gershman, Ye.I. Gulin spoke about the influence of
spraying on the process of combustion.
V.Ya. Basevich on the empiric law of combustion of fuel
drops in connection with spraying in the air current.
Yu.B. Sviridov, D.I. Ryabov recommended a new diffusion
kinetical model for the ignition and combustion of
sprayed fuel.

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Combustion and Formation of the Mixture in Diesel Engines. SOV/30-58-9-44/51
Conference in Moscow

A.N.Voinov spoke about self-ignition of homogeneous mixtures.
R.V.Mokhov about the influence of chemical admixtures to
the fuel on retarded ignition in the Diesel engine.
A.S.Sokolik, O.A. Machalicky (Czechoslovakian scientist)
reported on the physico-chemical basis of the so-called
M-process in Diesel engines.
N.R.Briling on an improvement of the stroke of Diesel engines
by the construction of motors with short stroke.
A.S.Sokolik, Ye.S.Semenov dealt with the investigation of
the working cycle in the cylinder of the engine by means of
a compensated thermo-anemometer.
M.S.Khovakh investigated the influence of air turbulences
on the torch formation of the fuel in the case of injection
by means of the kinematographical method.
V.Ye. Mazing spoke about screening of the intake valve.
B.S.Stechkin about heat production in the engine and its
influence on the stroke.
I.I.Vibe, N.K.Arslanov, Z.M.Minkin, K.I.Genkin and others
reported on the problem mentioned by Stechkin.
A.S.Sokolik, V.P.Karpov dealt with the antechamber torch

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Combustion and Formation of the Mixture in Diesel
Engines. Conference in Moscow

SOV/30-58-9-44/51

ignition as basis of a new type of engines.
V.N.Svobodov recommended a new method of controlling
the process of combustion in the Diesel engine.
Films about the process of combustion were shown which
were produced by M.D.Apashev in the Laboratoriya dvigateley
(Engine Laboratory). The following items were regarded as the
principle trends in the development of Diesel engines:
increase of the power output per liter of the engine by
means of a supercharger, increase of the number of revolutions
as well as fuel concentration. On the occasion of the 100th
anniversary of Rudolf Diesel (Rudol'f Dizel) I.A.Men'shikov
spoke about Diesel's life and work.

Card 3/4

KALABIN, Vitaliy Pavlovich, prof., doktor tekhn.nauk; SVIRIDOV, Yu.B.,
kand.tekhn.nauk, retsenzent; SOROKO-NOVITSKIY, V.I., prof., red.;
GELLER, I.Yu., red.izd-va; EL'KIND, V.D., tekhn.red.

[Thermal processes in internal combustion engines] Teplovye
protsessy dvigatelei vnutrennego sgoraniia. Moskva, Gos.nauchno-
tekhn.izd-vo mashinostroit.lit-ry, 1959. 439 p. (MIRA 12:11)
(Gas and oil engines)

STECHKIN, B.S., akademik, glavnyy red.; SVIRIDOV, Yu.B., zam.otv.red.;
APASHEV, M.D., red.; BRILING, N.R., red.; VASIL'YEV, B.N., red.;
VOINOV, A.N., red.; ZAGRYAZKIN, N.N., red.; GORSHKOV, G.B.,
red.izd-va; MAKAGONOVA, I.A., tekhn.red.

[Combustion and carburetion in diesel engines; proceedings of the
scientific and technical conference organized by the Engines
Laboratory in June 1958] Sgoranie i smesseobrazovanie v dizeliakh;
trudy nauchno-tekhnicheskoi konferentsii, provedennoi v iune
1958 g. Laboratorii dvigatelei. Moskva, 1960. 238 p.

(MIRA 14:2)

1. Akademiya nauk SSSR. Laboratoriya dvigateley. 2. Chlen-
korrespondent AN SSSR (for Briling). 3. Laboratoriya dvigateley
Akademii nauk SSSR (for all, except Gorshkov, Makagonova).
(Diesel engines)

41837

S/262/62/000/004/013/024

I014/I252

11-7100

AUTHOR:

Sviridov, Yu. B.

TITLE:

The nature of ignition of atomized fuels from the diffusion and kinetics point of view

PERIODICAL:

Referativnyy zhurnal, Silovyye ustanovki, no. 4, 1942, 52, abstract 42.4.309. In collection "Sgorania i Smeseobrazovaniye v dizelyakh". M., AN SSSR, 1960, 98-112

TEXT: Non-uniform concentration of the charge promotes ignition. The basic governing process in ignition is the chemical transformation, but at high temperatures, reactions may be accelerated by the transfer of reacting particles from zone to zone. Hence, the transfer process (even molar transfer) can directly increase the rate of the chemical chain transformation. The hypothesis given explains the shift, in engine fuels (except for the simplest gaseous type), of ignition and flame propagation rate maxima towards somewhat enriched mixtures, $\alpha = 0.8-0.9$, due to acceleration of the initial and intermediate reactions in the latter; this hypothesis also explains certain ignition peculiarities in homogeneous charges. The existence of different ignition mechanisms, governed by the relationship between the intensities of reaction development and of mixing, permits understanding of the nature of different types of combustion with changes in the above relationship. If the process is limited by the chemical reaction, combustion is homogeneous; if by mixing it is a case of diffusive

X

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I014/I252

The nature of ignition...

combustion. When these rates are equal, it is a case of a special type of bulk combustion, in which the greater part of the chamber space (already chemically ready for inflammation) is occupied by the flame immediately on ignition. There are 6 figures.

[Abstracter's note: Complete translation.]

X

Card 2/2

23965
S/113/60/000/004/002/007
D249/D301

11.7000
AUTHORS:

Sviridov, Yu. B., Candidate of Technical Sciences,
Shatrov, Ye.B. and Korsi, Ye.K.

TITLE:

Stereoscopic recording of fuel combustion processes
in engines

PERIODICAL: Avtomobil'naya promyshlennost', no. 4, 1960, 14-16

TEXT: The authors mention the method of filming the combustion processes in engines by using high speed and ultra high speed cameras permitting 500,000 and more frames in a second to be produced. Experiments carried out in 1957-1959 disclosed that still better results were obtained when studying combustion processes when stereoscopic filming of the flame was applied. In this filming each frame appears in the form of a stereoscopic pair (two images) obtained from two different points of view (Ref. 2: B.T. Ivanov, Stereokinotekhnika, izd-vo "Iskusstvo", 1956) and (Ref. 3: V. Pitch, Stereophotographie, Halle (Saale), Photokino-verlag). Experiments with stereoscopic filming were carried out in the

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D249/D301

Stereoscopic recording...

Laboratoriya dvigateley (Laboratory for Engines) of the AS USSR. Combustion processes were observed in a cylinder having a constant volume. The filming was done by an AEG camera permitting 16-80000 frames to be performed in a second. The recording was carried out through an optically transparent glass ЛК-5 (LK-5), mounted in the rear cylinder cover, on a perforated film 35 mm wide, having a sensitivity of 200-250 units. In order to receive a double image on the film, the camera lens ($F : 2$; $f = 75$ mm) was provided with a special prismatic stereoscopic attachment, having a detachable basis of 65 mm. The distance between the camera and the object (rear plane of the glass) was 400 mm. The combustion chamber depth was 120 mm. The frame size for each stereoscopic pair was 18 x 12 mm. A diagram is given, showing how the place of the ignition nucleus formation is determined. As a rule, flat photographing gives an erroneous image of the volume of the burned out charge. When looking at only one frame, it may seem that 50% of the charge is burned out, while inspecting both images concurrently it becomes evident that only 20% of the volume have been seized by flame. The ignition nucleus are

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D249/D301

Stereoscopic recording...

actually located in different planes in the combustion chamber. Demonstrations of stereoscopic films on the screen are carried out with a tenfold magnification. The spectator is provided with two analyzers (spectacles); one of them (the left hand analyzer) absorbs the rays polarized in the horizontal plane, while the other absorbs the rays that are polarized in the vertical plane. Inspection of these films has shown that the stereoscopic method provides a picture demonstrating combustion processes, indicating the places of ignition nucleus appearance, showing the shape of flame and the volumetric development of combustion. Stereoscopic recording permits research of fuel dispersion, formation of mixtures and hydrodynamics. For such research an apparatus is necessary which would permit photographing in passing light. For this purpose a combustion chamber with two transparent glasses can be used. (Ref. 5: I.I. Gershman, and M.N. Kukharev, "Avtomobil'naya i traktornaya promyshlennost'", no. 2, 1956); (Ref. 7: B.S. Stechkin, M.D. Anashev, Trudy laboratoriyi dvigateley, AN SSSR, vyp. III, 1957. There are 5 figures and 7 references: 5 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Laboratoriya dvigateley AN SSSR (Engine laboratory, AS USSR).
Card 3/3

SVIRIDOV, Yu.B.; ZUYEV, B.A.

Investiating the operation of a flame-ignition engine with air
fuel atomization into the precombustion chamber. Trudy Lab.dvig.
no.5:94-110 60. (MIRA 14:3)
(Gas and oil engines--Testing)

L 19358-63 EPA/EPR/EPF(c)/EWT(m)/BDS/ES(s)-2 AFFTC/APGC/SSD Paa-4/
 Ps-4/Pr-4/Pt-4 WW/JW/MN
 ACCESSION NR: AR3005023 S/0273/63/000/006/0032/0032 34/13

SOURCE: RZh. Dvigateli vnutrennego sgoraniya, Abs. 6.39.264

AUTHOR: Sviridov, Yu. B.

TITLE: Mechanism of atomized fuel combustion

CITED SOURCE: Tr. Khar'kovsk. in-ta inzh. zh.-d. transp., vyp. 46, 1961, 12-29

TOPIC TAGS: fuel combustion, atomized fuel combustion, ignition

TRANSLATION: The author describes experiments performed in a diesel bomb which show that the processes of ignition and combustion of atomized fuels have a complex and nonhomogeneous character determined by the development of physical and chemical processes. Three types of ignition and three types of combustion were discerned; the determining effect of the ignition process on the burning of atomized fuel was analyzed.

DATE ACQ: 01Jul63.

SUB CODE: FL

ENCL: 00

Card 1/1

SVIRIDOV, Yu.B.; SHATROV, Ye.V.

Application of high-speed stereoscopic cinematographic
recording in the analysis of combustion processes. Usp.
nauch.fot 9:210-212 '64.

(MIRA 18:11)

SVIRIDOV, Yu.I., inzh.

Question on the method of measuring the brightness of luminaires.
Svetotekhnika 5 no.8:18-20 Ag '59. (MIRA 13:2)

1.Vsesoyuznyy svetotekhnicheskij institut.
(Electric lighting)

IVANOVA, N.S., kand.takhn.nauk; SVIRIDOV, Yu.I., inzh.

Some results of quality control in mass production. Svetotekhnika
8 no.11:27 N '62. (MIRA 15:10)

1. Vsesoyuznyy svetotekhnicheskiy institut.
(Electric light fixtures)
(Electric equipment industry—Quality control)

L 29307-56 EWT(m) IJP(c) GD

ACC NR: AT6012261

SOURCE CODE: UR/0000/65/000/000/0001/0013

AUTHORS: Budker, G. I.; Dimov, G. I.; Popov, A. G.; Sviridov, Yu. K.;
Sukhina, B. N.; Timoshin, I. Ya. 53

ORG: Institute of Nuclear Physics, Siberian Department AN SSSR
(Institut yadernoy fiziki Sibirskogo otdeleniya AN SSSR) BT1

TITLE: Experimental investigation of charge-exchange injection of
protons in annular accelerators and storage rings

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut yadernoy fiziki.
Doklady, 1965. Eksperimental'noye issledovaniye perezaryadnoy
inzhektzii protonov v kol'tsevyey uskoriteli i nakopiteli, 1-13

TOPIC TAGS: charge exchange, proton accelerator, energy scattering,
circular accelerator

ABSTRACT: The authors describe experiments on the accumulation of protons in an annular track by means of a charge exchange (Fig. 1). A beam of atoms or negative ions of hydrogen is introduced on a proton orbit in a magnetic field at the point where it crosses a hydrogen jet. The particles lose electrons in the jet and are accumulated on the orbit in the form of protons. The protons passing many times through the jets lose energy and are scattered. In a constant magnetic field the time of

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ACC NR: AT6012261

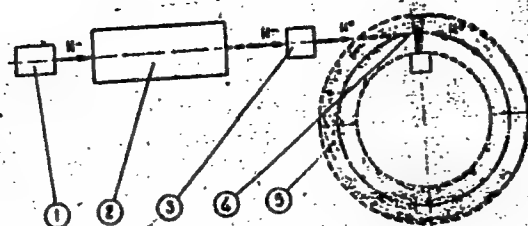


Fig. 1. Diagram of experimental setup. 1 - Source of negative hydrogen ions, 2 - accelerator, 3 - input gas target, 4 - jet of hydrogen on orbit, 5 - storage ring

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ACC NR: AT6012261

accumulation is limited by the loss of the circulating protons to the inner wall of the storage ring. If the average energy loss is compensated for, the storage time is limited by elastic scattering and by the energy scatter of the protons. The experimental setup was described elsewhere (Mezhdunarodnaya konferentsiya po uskoritelyam Dubna, 1963, [International Conference on Accelerators], Moscow, 993 -- 996, 1964). Methods of measuring the proton current and the proton lifetime in the storage ring are briefly described. Various parts of the experimental setup are described in detail. The ion source was a modified electrostatic generator. Up to 10^{12} protons could be accumulated in the betatron loop (current ~ 1 ampere). The injection efficiency was close to 100%. Hydrogen and carbon dioxide were used for the input targets, with optimal thickness 2.5×10^{16} and 3×10^{15} mol/cm². An accelerating voltage of 200 v was applied in pulses of 500 μ sec duration, so that accumulation for 2500 revolutions was possible. The loop current increased approximately linearly to 300 ka. The various sources of losses are briefly analyzed. Orig. art. has: 8 figures and 7 formulas.

SUB CODE: 20/ ORIG REF: 001/ OTH REF: 001

Card

3/3

BK

L 25774-66 EWT(m) IJP(c)

ACC NR: AP6016378

SOURCE CODE: UR/0089/65/019/006/0507/0510

AUTHOR: Budker, G. I.; Dimov, G. I.; Popov, A. G.; Sviridov, Yu. K.; Sukhina, B. N.; Timoshin, I. Ya.

ORG: none

TITLE: Experiments with charge exchange injection of protons in a storage ring

SOURCE: Atomnaya energiya, v. 19, no. 6, 1965, 507-510.

TOPIC TAGS: Van de Graaff accelerator, proton, hydrogen ion

ABSTRACT: Negative hydrogen ions were extracted from a high frequency source and were accelerated in a Van de Graaff machine to 12 μ amp. This beam then struck a neutralizing gas target of hydrogen or carbon dioxide having an optimum thickness of 2.5×10^{16} or 3×10^{15} molecules/cm² respectively. The resulting beam of neutral hydrogen atoms then struck a jet of hydrogen having a thickness of $\sim 10^{17}$ atoms/cm². The hydrogen jet was directed along a radius from the center of a storage ring with an aperture of 8 X 4 cm and an orbital radius of 42 cm. The particle losses did not exceed a few percent with injections up to 1500 revolutions. The orbital current increased linearly for the first 100 revolutions and remained constant for ~ 150 revolutions. During this period the orbital radius of the beam decreased and then struck the internal hydrogen stream. Thus the injection efficiency was close to 100%. These preliminary results indicate that it is possible to accumulate a proton current that is limited only by the space charge. Orig. art. has: 5 figures. [NA]

SUB CODE: 20 / SUBM DATE: none

Card 1/1 AC

SVIRIDOV, Yu.P.; BLOSHTEYN, Ye.A.

"Fundamentals of the design and manufacture of plastic parts in the automobile industry" by G.A. Malyshev, A.N. Ezerskii. Reviewed by Yu.P. Sviridov, E.A. Bloshtein. Avt. prom. 30 no.8:48 Ag '64 (MIRA 17:11)

1. Nauchno-issledovatel'skiy institut tekhnologii avtomobil'noy promyshlennosti.

S/089/60/008/06/17/021
B006/B063 82316

2116300

AUTHOR: Svintsev, Yu. V.

TITLE: New Data on the Concentration of C^{14} in the Atmosphere

PERIODICAL: *Atomnaya energiya*, 1960, Vol. 8, No. 6, pp. 573-575

TEXT: The neutrons released by the explosion of an A-bomb interact with atmospheric nitrogen (${}_7N^{14} + {}_0n^1 \rightarrow {}_6C^{14} + {}_1H^1$), whereby the pure beta emitter C^{14} with a half-life of 5,600 years is produced. The concentration of C^{14} in the atmosphere has steadily increased since 1953. The dangerous effect of C^{14} is due to the development of mutants. Estimates by O. I. Leypunskiy (Ref. 1) have shown that 49,000 people will be genetically damaged by the explosion of an H-bomb of 10 megatons, and 41,000 people by an ordinary A-bomb. In the following, the author gives the results of American measurements (Refs. 5-7), and a diagram illustrates the rising concentration of C^{14} in the atmosphere

Card 1/2

New Data on the Concentration of C^{14} in
the Atmosphere

S/089/60/008/06/17/021
B006/B063 82316

of the Northern Hemisphere between 1953 and 1959. In the past three years, it has risen by about 5 per cent. The data given next was taken from Western publications, and the most important results are compiled in a Table. It lists the number of C^{14} atoms which accumulated until March, 1958 in the various parts of the earth and the atmosphere (as a result of A-bomb tests):

	Troposphere	Biosphere	Oceans	Stratosphere	Total
Minimum	3.6	0.2	0.6	0.7	5.1
Probable Value	3.6	0.2	1.0	7.0	11.8
Maximum	3.6	0.2	1.5	28.5	27.8

These values are to be multiplied by 10^{27} . There are 1 figure, 1 table, and 14 references: 3 Soviet and 1 German.

4

Card 2/2

~~ARTAMONOV SVIRIDOVA. A.A.~~

ARTAMONOV, Dmitriy Semenovich; LUPICHEV, Nikolai Pavlovich, redaktor;
SHKONIN, L.Ya., retsenzent; SVIRIDOVA, A.A., retsenzent;
VIKOGRADOVA, N.M., redaktor; KHASNAYA, A.K., tekhnicheskii
redaktor.

[Manual for oil barge skippers] Posobie shkiperu nefteanalivnoi
barzhi. Izd. 2-oe, perer. i dop. Moskva, Izd-vo "Nauchnoi
transport," 1955. 182 p. [Microfilm] (MLRA 9:1)
(Tank vessels) (Petroleum--Transportation)

2 56492-65

1. THE JON N.

APR 1966

UR/0286/65/000/011/0031/0031
RS 10.002.2

4
B

AUTHOR: Karatayev, I. I.; Mel'nik, V. M.; Raygorodskiy, I. M.; Vasil'yev, B. I.; Bystrov, Doktorov, N. I.; Nazarov, G. N.; Raygorodskiy, I. M.; Vasil'yev, B. I.; Bystrov, V. V.; Biharyka, I. F.; Kuzyak, F. A.; Fel'dman, M. V.; Soverchenko, D. A.; Andres, N. P.; Lyubimov, S. V.; Ul'yanov, A. T.; Kramer, G. L.

Card 1

ACCESSION NR: AFS017800

10. 25 20, 25

Card 22

SIRIDOLA, A I

15
V. Investigating the chemical resistance of glassware. A. I.
Tushchenko and A. I. Pylyshyn. "S S R" 1954: 155. July
Investigating the formation of biol. growth, e.g.
A. I. Pylyshyn and A. I. Pylyshyn. "S S R" 1954: 155. July
Investigating the biol. growth of glassware. A. I.
Tushchenko and A. I. Pylyshyn. "S S R" 1954: 155. July

Am

S/080/62/035/002/005/022
D204/D302

AUTHORS: Sviridova, A. I. and Suykovskaya, N. B.

TITLE: Properties of $ZrCl_4$ and $ThCl_4$ solutions in ethyl alcohol

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 2, 1962, 280-285

TEXT: Solutions containing 0.02 - 2.0 g moles $ZrCl_4$ and 0.5 - 1.5 g moles $ThCl_4$ /l EtOH were studied in view of their practical and theoretical interest. The effects of concentration on the stability, acidity, refractive indices and specific and molar conductivities were investigated. The acidity, determined by titration with alc. KOH increased almost linearly with concentration, except for a positively curved portion between 0.8 and 0.9 g mole chloride per liter. $ZrCl_4$ solutions were more acid than those of $ThCl_4$. Similar increases of the refractive index and specific conductivity were observed when the concentrations were increased, with a curved portion and a maximum respectively at 0.8 - 1.0 g mole chloride/l;

Card 1/2

S/080/62/035/002/005/022
D204/D302

Properties of $ZrCl_4$...

while the molar conductivity fell off with concentration in the usual manner. No change in any of these properties was observed, for a given concentration, over 1 year. The data are presented graphically and in tabular form. Specific conductivity was ascribed chiefly to the presence of HCl and it is considered that $ZrCl_4$ dissociates to a greater extent in EtOH than $ThCl_4$. It was found that

homogeneous, transparent oxide films could be obtained from solutions of optimum acidity. Excess acidity which hinders film formation was reduced by neutralization with metallic Na or K. The existence of $ZrCl_2(OEt)_2$ was established. There are 4 figures, 4

tables and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: R. S. Hansen, K. Gunnar, A. Jacobs and C. H. Simmons, J. Am. Chem. Soc., 72, 5043, (1950); D. C. Bradley, F. M. Abd el Halim and W. Wardlaw, J. Chem. Soc., 12, 3450, (1950); A. M. El-Aggan, D. C. Bradley and W. Wardlaw, *ibid.*, 12, 4643 (1958).

SUBMITTED: October 15, 1961

Card 2/2

41537

S/051/62/013/003/009/012
E202/E435

24 3750
AUTHOR:

Sviridova, A.I.

TITLE:

Optical properties and structure of zirconia films

PERIODICAL:

Optika i spektroskopiya, v.13, no.3, 1962, 425-428

TEXT:

Data on refractive index of zirconia and the porosity, transparency and crystalline structure of its films obtained by hydrolysis of zirconium tetrachloride and disubstituted ester of o-zirconic acid are presented as a result of investigating such films 0.1 to 1 μ thick, deposited on fused quartz. The films were subjected to various heat treatment including heating up to 800°C and their various modifications (amorphous, cubic, monoclinic and mixed) were identified by means of X-ray diffraction. The thickness and refractive index were determined from the magnitude and position of the maximum on the spectral reflection curve of quartz coated with zirconia films. Spectrophotometer CP-4 (SF-4) with a special attachment giving ± 1.5 to 2% accuracy was used for this purpose. The tables given summarize the effect of temperature on the refractive index, porosity, crystalline structure and limits of transparency. It was concluded that in

Card 1/2

Optical properties and ...

S/051/62/013/003/009/012
E202/E435

the temperature range between 120 and 130°C, the disappearance of the residual water and alcohol leads to the strengthening of the film, gradual increase of the refractive index and reduction of porosity. The film heated up to 300°C was amorphous and transparent to 280 - 290 mμ at the total optical thickness of 8400 Å. Within the 300 to 400°C interval the thickness of the film decreased rapidly, the refractive index increased and so also did the radius of the pores. Heating above 300°C caused crystallization while the refractive index and porosity remained substantially constant. Crystallinity lowered transparency to the shortwave component by 12 to 17%. There are 2 figures and 2 tables.

SUBMITTED: July 7, 1961

Card 2/2

LOBANOV, Ye.M.; ZVYAGIN, V.I.; KIST, A.A.; ZVEREV, B.P.; SVIRIDOVA, A.I.;
MOSKOVTSOVA, G.A.

Determination of manganese in silicon by the radioactivation
method. Zhur. anal. khim. 18 no.11:1349-1355 N '63.
(MIRA 17:1)

1. Institut yadernoy fiziki AN UzSSR, Tashkent.

27(1)/TJP(c)/SSD/AFWL/ESD(ES) JD/MLK

ACCESSION NR: AT4046915

S/0000/64/000/000/00/7/0083

AUTHOR: Lobanov, Ye. M.; Zvyagin, V. I.; Kist, A. A.; Sviridova, A. I.; Yevseyenko, G. A.; Moskovtseva, G. A.

TITLE: Determination of impurities in a single crystal of germanium by the method of activation analysis 27

НАУКА СССР, 1984, 1-3

TOPIC TAGS: germanium, germanium crystal, semiconductor purity, activation analysis, neutron bombardment, gallium determination

ABSTRACT: The author considers the use of activation analysis of germanium samples to verify electrophysical measurements indicating an almost compensated acceptor concentration of 4×10^{15} atoms/cc. A parallel investigation of germanium containing less than 10^{10} atoms/cc of Ga was conducted to correct for Ga formed by the (n,p) reaction with fast neutrons, and a combination of radiochemical and γ -spectral analysis was used to interpret the results. The sample was irradiated for 5 minutes in a reactor flux of 1.9×10^{12} n/cm²·sec, etched with acid for 1 min., and the γ -spectrum taken with a single-crystal scintillation spectrometer. Cord 1/3

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ACCESSION NR: AT4046915

using a 40 x 50 NaI (TI) crystal, FEU-43 photomultiplier and 100-channel kicksorter. 2 min. after the completion of irradiation. The concentration of possible Al impurities was found to be not greater than $10^{-10}\%$. In activating the germanium targets of the same materials (In, Ga, Sb, As) as the impurities were irradiated and irradiated during the activation of the targets and

... where the ... of the Ga in the pure, ... of the photoprocess ... the reaction cross section, ... the theoretical value ... of Ga in ... as may occur in ... In the present case, the main contri- ... found by activation ... by electrochemical ... the concentrations of In, Al and As.

RYUKHIN, N.V.; BARANOVA, V.N.; SVIRIDOVA, A.I.

Possibilities of improving the whiteness of paper. Bum. prom. no.
2:8-10 F '64. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsellyulozno-
bumazhnoy promyshlennosti.

1 1454-01
ACCESSION NR: AP5019485

... .. The most pronounced effect was obtained by using the
... .. has: 1 figure and

... ..

... ..

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Cord 2 2

SLEFUSHKIN, A.N.; SVIRIDOVA, A.M.; KETILADZE, Ye.S.

Prospects for using serological methods for detecting the role of streptococcal and staphylococcal infections in the etiology of acute respiratory diseases and complications of influenza. Zhur. mikrobiol., epid. i immun. 41 no.4:88-93 Ap '64. (MIRA 18:4)

1. Institut virusologii imeni Ivanovskogo AMN SSSR, Moskva.

SVIRIDOVA, A. N.

KORZHUYEV, P.A.; KRUGLOVA, G.V.; SVIRIDOVA, A.N.

Some ecological and physiological characteristics of reptiles [with summary in English]. Zool. zhur. 36 no.2:246-259 F '57. (MLRA 10:6)

1. Institut morfologii zhivotnykh Akademii nauk SSSR.
(Reptiles)

KORNILOV, G.G.; SVIRIDOVA, A.S.; YABLONSKIY, V.S. [deceased]

Estimating the head losses in the motion of gas-liquid mixtures.
Trudy NIITransneft' no.3:35-41 '64.

Experimental investigation of the motion of gas-liquid mixtures
through pipelines. Ibid.:42-57

(MIRA 18:2)

23764

S/190/61/003/006/007/019
B110/B216

15.8116

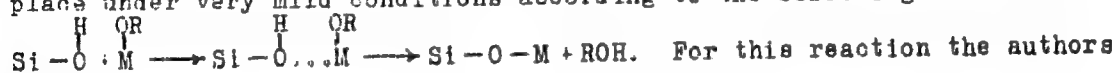
2203

AUTHORS: Nudel'man, Z. N., Sviridova, A. V., Novikov, A. S.

TITLE: Synthesis of linear alumosiloxane polymers by silanol condensation

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 6, 1961, 841-845

TEXT: Since no method has been described for the preparation of linear metallosiloxanes of preset structure, the authors tried to synthesize these polymers by applying silanol condensation (Ref. 1: Kauchuk i rezina, 1960, No 5, 17). This condensation takes place on mixing organo-silicon compounds containing the silanol group Si-OH with alkoxy derivatives of metals, organometallic groups or silicon (e.g. aluminum alcoholates, dialkoxy derivatives of the monoacetylacetonate, other aluminum complexes, alkoxy derivatives of titanium, tin and iron, etc.). Separation of the alcohol and formation of the metallosiloxane bond take place under very mild conditions according to the following scheme:



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B110/B216

Synthesis of linear alumosiloxane...

properties of these modified alumosiloxane derivatives (MAS), which are modified by aluminum links. The time required for the reaction is directly proportional to the molecular weight of the polydimethylsiloxane derivative used. A comparison of the viscosities of MAS (Table 1) in toluene and solutions of the initial siloxane indicates the increased molecular dimensions of MAS. Their greater hardness is due to the formation of donor-acceptor bonds between the aluminum groups of different polymer molecules and to multiple coordination of the aluminum atom. The oxygen atom in the alkoxy group of the acetoacetic ester has the greatest electron density and is able to form complexes. For this reason the ethyl and octyl esters of acetoacetic acid, having different complexability were used. Hardness was determined thermomechanically according to Kargin in the temperature range -60°C to 200°C (at a rate of 4°C per 10 min). The extent of intermolecular interaction is mainly determined by the relative number of aluminum links in the chain. The properties due to the aluminum links are more marked if the initial siloxane is lower-molecular. The Al content of MAS depends only on the molecular weight of the initial siloxane and not on the ratio aluminum complex/siloxane (26,300 = 1.99 % Al; 3160 = 3.61 % Al). The greater hardness of the second

Card 3/7

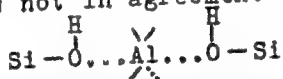
23764

S/190/61/003/006/007/019
B110/B216

Synthesis of linear alumosiloxane...

polymer is due to its higher Al content and the numerous Al links. The above-stated composition is confirmed by the findings that the polymers are completely soluble in benzene and toluene, flow under pressure, melt on heating and sinter at high temperatures. The residual compression is also characteristic of structureless polymers. This is corroborated by the viscosity (Table 1) and the presence of Al in these polymers. Acetylacetone forms very stable acetylacetonates with the Al of many aluminum compounds, splitting the Si-O-Al bond. On treating MAS with excess acetylacetone at room temperature (Table 2), the initial polydimethylsiloxanes were regenerated, which shows that condensation did not take place: $\text{Si-OH} + \text{HO-Si} \xrightarrow{\text{Al}} \text{Si-O-Si} + \text{H}_2\text{O}$. Heating of MAS to

>200°C leads to reversible softening, which together with its resistance to pyridine, is not in agreement with the presence of a large number of complex bonds



This method can also be applied in the synthesis of linear polymers modified by titanium, tin, iron, etc., in the given order, their properties

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23764

Synthesis of linear alumosiloxane...

S/190/61/003/006/007/019
B110/B216

depending on the metal alkoxide used and its ratio to the polysiloxane.
There are 1 figure, 2 tables, and 3 references: 2 Soviet-bloc and
1 non-Soviet-bloc.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti
(Scientific Research Institute of Rubber Industry)

SUBMITTED: July 25, 1960

Table 1: Viscosity of toluene solutions of MAS in initial polydimethyl-
siloxane derivatives. a) Mol.-wt. of initial polydimethylsiloxanes;
b) polydimethylsiloxane; c) concentration, g/100 ml; d) given rate;
e) MAS; 1) viscosity at 20°C; 2) viscosity at 25°C.

Card 5/7

SHOSTAKOVSKIY, M.F.; PRILEZHAYEVA, Ye.N.; SVIRIDOVA, A.V.

Polymerization of vinyl ethyl sulfone under the effect
of free radical initiating agents. Dokl. AN SSSR
146 no.4:837-839 0 '62. (MIRA 15:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo
AN SSSR. 2. Chlen-korrespondent AN SSSR (for Shostakovskiy).
(Sulfones) (Polymerization)
(Radicals (Chemistry))

SVIRIDOVA, A. Ye.

Rhinologic technique in optochiasmic arachnoiditis. Vest.
otorinolar., Moskva 13 no.4:42-45 July-Aug 1951. (CIHL 21:1)

1. Candidate Medical Sciences. 2. Of the Otoneurological
Division (Head -- Prof. O. G. Ageyeva-Maykova), Institute
of Neurosurgery imeni N. N. Burdenko of the Academy of
Medical Sciences USSR (Director -- Prof. B. G. Yegorov,
Corresponding Member of the Academy of Medical Sciences
USSR).

SVIRIDOVA, A.Ye.

Dynamics of spontaneous nystagmus in surgical therapy of hypertension.
Vop. neirokhir. 19 no.1:24-27 Ja-F '55. (MLRA 8:2)

1. Iz otonevrologicheskogo kabineta Nauchno-issledovatel'skogo ordena
Trudovogo Krasnogo Znameni instituta neyrokhirurgii imeni akad. N.N.
Burdenko Akademii meditsinskikh nauk SSSR.

(BRAIN, neoplasms,
with intracranial compression with nystagmus, surg.)

(NYSTAGMUS, etiology and pathogenesis,
intracranial compression in brain tumor & meningeal
tuberc., surg.)

(TUBERCULOSIS, MENINGEAL, complications,
nystagmus caused by intracranial compression, surg.)

SVIRIDOVA, A.Ye.

Clinical significance of vestibular lesions in closed wounds of the
skull. Vop.neirokhir. 21 no.1:9-13 Ja-F '57. (MLA 10:3)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo Znameni
institut neyrokhirugii imeni akad. N.N.Burdenko Akademii meditsin-
skikh nauk SSSR.

(BRAIN, wounds and inj.

causing aural nystagmus in closed inj.)

(NYSTAGMUS, etiol. and pathogen.

aural, caused by closed inj. of brain)

SVIRIDOVA, A.Ye., kand.med.nauk

Cochleovestibular syndrome in primary tumors of the lamina
quadrigemina. Probl.sovr.neirokhir. 3:355-361 '59.

(MIRA 16.6)

(BRAIN—TUMORS)

(HEARING)

KORNYANSKIY, G.P., prof.; SVIRIDOVA, A.Ye. (Moskva)

Myoclonus of muscles of the soft palate, pharynx and larynx after surgical excision of tumors of the cerebellum and neurinomas of the acoustic nerve. Vop.neirokhir. no.4:24-29 '61. (MIRA 14:12)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo Znameni institut neyrokhirurgii imeni akad. N.N. Burdenko AMN SSSR.
(MUSCLES—DISEASES) (CEREBELLUM—TUMORS)
(ACOUSTIC NERVE—TUMORS)

SVIRIDOVA, A.Ye., kand.med.nauk

Cochlear vestibular syndrome in tumors of the cerebral aqueduct.
Probl.sovr.neirokhir. 4:249-256 '62. (MIRA 1612)
(BRAIN—TUMORS) (LABYRINTH (EAR)—DISEASES)

ZEL'DIN, Boris Borisovich; MARGOLIN, V.A., redaktor; SVIRIDOVA, F.A.,
redaktor; NADENSKAYA, A.A., tekhnicheskii redaktor.

[Technical control in a factory producing coal briquets] Tekhni-
cheskii kontrol' na uglebriketnoi fabrike. Moskva, Ugletekhizdat,
1955. 39 p. (MLRA 8:11)
(Briquets (Fuel))

SVIRIDCVA, G.A.

New SPT core binder. Lit. proizv. no.3:36-37 Mr '61. (MIRA 14:6)
(Coremaking) (Binding materials)

SVIRIDOVA, G.A.; CHINYAKINA, Z.V.

Standardization of core sand mixtures in foundries of the
Urals automobile plant. Lit. proizv. no.6:37 Je '64.
(MIRA 18:5)

SVIRIDOVA, I.K.

Results of studies on nitrogen and mineral leaching from the
tree crowns by rain. Dokl.AN SSSR 133 no.3:706-708
Jl '60. (MIRA 13:7)

1. Voronezhskiy gosudarstvennyy zapovednik. Predstavleno
akad. I.V.Tyurinym.
(Plants, Effect of water on) (Trees)

SVIRIDOVA, I.K.

Dynamics of nutrients in soils of aspen forests in the Voronezh Preserve. Trudy Vor. gos. zap. no.13:31-37 '61. (MIRA 16:8)

(Voronezh Preserve--Aspen)
(Voronezh Preserve--Forest soils)

SVIRIDOVA, I.K.

Effect of improvement cuttings on the moisture supply in soils
of aspen forests. Trudy Vor. gos. zap. no.13:113-139 '61.
(MIRA 16:8)

(Forest management Voronezh Preserve--Soil moisture)
(Voronezh Preserve--Aspen)

SVIRIDOVA, I.K.; POPOVA, M.Ye.

Studying the balance of perched water and the translocation of
nitrogen and ash elements beyond the limits of the soil profile.
Trudy Vor. gos. zap. no.13:165-173 '61. (MIRA 16:8)

(Voronezh Preserve--Runoff)
(Voronezh Preserve--Forest soils)

ZHIROMSKAYA, I.P., nauchnyy sotrudnik; KALMYKOVA, A.I., nauchnyy sotrudnik;
SVIRIDOVA, I.N., nauchnyy sotrudnik

"History of Moscow," Vols. 1-6. Reviewed by I.P. Zhiromskaia,
A.I. Kalmykova and I.N. Sviridova. Vest. AN SSSR 31 no.10:144-149
O '61. (MIRA 14:9)

1. Muzey istorii i rekonstruktsii Moskvy.
(Moscow--History)

SVIRIDOVA, I.V.
VINOKURENKOVA, A.I., dotsent; RUDAKOVA, R.S.; SVIRIDOVA, I.V.; MARKOVA, A.I.;
ROMANOVA, A.G.

[Treatment of cervical erosion with needle punctures according to
Vinokurenkova's method. Sov.med. 21 no.2:54-57 F '57. (MLRA 10:6)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. V.I.Zdravo-
myslov) Stavropol'skogo meditsinskogo instituta.

(CERVIX, UTERINE, dis.

erosion, ther., multiple puncture with needle around
eroded area)

SVIRIDOVA, L.V. (Moskva)

Prophylaxis of brucellosis. Fel'd. i akush. 24 no.3:27-34 Mr '59.
(MIRA 12:4)

(BRUCELLOSIS)

SEKRETTA, Pavel Maksimovich; AYZINBUD, Yudif' Izrailevna; SVIRIDOVA, Larisa Valer'yanovna; KHRISTOV, L.N., red.; MATVEYEVA, M.M.,
tekhn. red.

[Organizing the work of city hygiene and epidemiology
institutes] Organizatsiia raboty gorodskikh sanitarno-epidemi-
ologicheskikh uchrezhdenii. Moskva, Medgiz, 1962. 102 p.
(MIRA 15:3)

(PUBLIC HEALTH)

ZOR'KIN, Ya.M.: SVIRIDOVA, M.I.

Characteristics of the distribution of Mesozoic formations in the regions of the Dzarkaka, Karaulbazara, and Sarytasha oil and gas fields. Uzb. geol. zhur. 9 no.6:60-64, '65
(MIRA 19:1)

1. Institut geologii i razvedki neftyanykh i gazovykh mestorozhdeniy Gosudarstvennogo geologicheskogo komiteta SSSR.
Submitted March 27, 1965.

SOV/81-59-16-56923

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 137 (USSR)

AUTHORS: Kuranov, A.A., Sviridova, M.M.

TITLE: Determination of Palladium, Platinum, Gold, Lead, Bismuth, Antimony, Copper and Iron in Pure Silver and the Determination of Antimony, Bismuth, Lead and Iron in Silver-Copper Alloys

PERIODICAL: V sb.: Materialy 1-go Ural'skogo soveshchaniya po spektroskopii, 1956. Sverdlovsk, Metallurgizdat, 1958, pp 85-89

ABSTRACT: For analysis ready samples in the form of rods of 6 mm in diameter with butts of oval shape are used. The spectra are excited in an a-c arc discharge at 12 a with an arc gap of 2 mm and are photographed with a big KS-55 spectrograph at an exposure of 120 sec ("spectral" plates type II and III); the slit breadth of the spectrograph is 0.03 mm in the analysis of Ag and 0.02 mm in the analysis of Ag-Cu-alloys. The calibrating graphs are plotted in the coordinates $\lg(I_1/I_f)$, versus $\lg C$ without the background allowance. The error of the analysis is 10 - 20%. The standards are prepared by the fusion of the pure metals with the alloys with the introduction of corrections for the pollution of the base according to

Card 2/ Card 1/2

30V/959

PHASE I BOOK EXPLANATION

Ural'skiye sovetskaniye po spektroskopii

Materialy 2 Ural'skogo sovetskaniya po spektroskopii, Sverdlovsk, 1958 g. (Materials of the Second Ural Conference on Spectroscopy, Held in Sverdlovsk, 1958) Sverdlovsk, Metallurgizdat, 1959. 306 p. First all in-serial. 1,000 copies printed.

Sponsoring Agency: Ural'skiy filial Akademii nauk SSSR. Komissiya po spektroskopii i Ural'skiy dom tekhniki VNTSO.

Eds.: A. M. Borzhenko, V. I. Chentsov, and G. I. Pavlovich Chernykh; P. B. I. N. M. Mal'nev.

PURPOSE: This collection of articles is intended for spectral analysis laboratory workers at ferrous and nonferrous metallurgical enterprises and for laboratory personnel of the metallurgical industry, for metallurgical and prospecting organizations, and similar scientific research laboratories.

CONTENTS: The collection contains papers read at the Second Ural Conference on the spectral analysis of ferrous and nonferrous metals and alloys, on slags, ores, and concentrates. The collection includes articles on the analysis of alloys (including the determination of gases), ferroalloys, nonferrous and light metals and alloys, pure noble metals, etc. The present volume is intended to disseminate the latest experience in working with spectral laboratories, and to report on the results of scientific research. The author thanks R. I. Otkina and N. M. Buravlev. Almost all of the articles are accompanied by references.

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SVIRIDOVA, M. M.

28(5)

SOV/32-25-5-43/56

AUTHORS: Kuranov, A. A., Sviridova, M. M.

TITLE: Synthetic Standard Samples for Spectrum Analysis of Silver
(Sinteticheskiye etalony dlya spektral'nogo analiza serebra)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr. 5, pp 624-625 (USSR)

ABSTRACT: The preparation of cast samples for the spectrum analysis of precious metals with a precisely determined quantity of admixtures of elements with high melting points (as e.g. iridium or rhodium) is very difficult. In this case the use of metallo-ceramic samples is more convenient. In the present case samples of this type were prepared with Pt, Pd, Fe, Cu, Au, Al, Sb, Te, Pb, and Se in additional quantities of 10⁻⁵ to 10⁻²%. The metallic powders were separated into fractions by suspension, and only fractions with particle sizes of some ten micra were used. After mixing thoroughly, briquets were pressed (height: 25 mm, diameter: 20 mm) and fritted at 300° in hydrogen atmosphere; afterwards they were pressed again and repeatedly fritted at 600 and 800°. At the temperatures mentioned Bi, Se, Al, Pb, Sb, and Te melt; the mobility of the atoms of the other elements also rises considerably whereby rather homogeneous samples are

Card 1/2

SVIRIDOVA, N.A.

USSR

✓ Investigation of wormwood of the Karakhsian flora for
its alkaloid contents. M. I. Gorynev, A. T. Petushkova,
and N. A. Sviridova. *Trudy Alma-Atinskogo Zaoet.*
Inst. 7, 247-67 (1953); Referat. Zhur., Khim., 1954, No.
32096.—The unit. of alkaloids (I) was studied in 29 species
of wormwood (*Arenaria*) collected in different regions of
Altai in 1950. It is concluded that all species contain I.
The richest and poorest species with respect to I are
indicated. E. Wierbicki.

88727

S/190/61/003/001/007/020
B119/B216

15.9205

AUTHORS: Borisov, S. N., Sviridova, N. G.

TITLE: Polydimethyl-stannasiloxane derivatives

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 1, 1961, 50-55

TEXT: The authors synthesized polydimethyl-stannasiloxane derivatives with the aim of obtaining rubbery materials resistant to high temperatures, and studied the possibility of preparing rubbers based on these compounds, in analogy to polydimethyl germanasiloxane rubbers. Corresponding to the use of "oxa" and "aza" in the nomenclature of organosilicon compounds, "stanna" is used to designate the substitution of Si atoms by Sn atoms. SnCl_4 , SnBr_4 and dimethyl dichloro silane (DDS) (used for the synthesis of polydimethyl siloxane rubber CKT (SKT)) were applied for the synthesis. The following compounds were prepared: Tetramethyl stannan (by the method described in Ref. 9), tetraethyl stannan (by the method described in Ref. 10), compounds of the type R_2SnX_2 (by the method of Refs. 9 and 11), diethyl dichloro stannan, dimethyl dibromo stannan and dimethyl

Card 1/3

88727

Polydimethyl-stannasiloxane derivatives

S/190/61/003/001/007/020
B119/B216

with a density greater than 1. Similarly prepared polydiethyl-stannadimethyl-siloxane with 11% Sn is also resinous. Treatment of stannasiloxane (9-19% Sn) solutions in octamethyl cyclotetrasiloxane with concentrated H_2SO_4 leads to separation into two phases, an upper oily layer containing no Sn and a salt-like precipitate consisting of polymer fragments of the formula R_2SnSO_4 and $HOSnR_2SO_4H$. This indicates chain rupture at the Si-O-Sn bonds. The preparation of rubbery substances was therefore not achieved. The admixture of stannasiloxane copolymers or stannoxanes to polydimethyl siloxane rubber SKT does not improve the vulcanizates. Among other publications, the ones by K. A. Andrianov, L. M. Khananashvili, and K. A. Kocheshkov are mentioned. There are 4 tables and 14 references: 9 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut
sinteticheskogo kauchuka (All-Union Scientific Research
Institute of Synthetic Rubber)

SUBMITTED: May 30, 1960

Card 3/3

30107
S/080/62/035/004/021/022
D205/D301

15. 9706
AUTHORS:

Borisov, S. N., Karlin, A. V., and Sviridova, N. G.

TITLE:

Simultaneous polymerization of octamethyl cyclotetra-
siloxane and decamethyl pentacyclosiloxane

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 4, 1962, 917-919

TEXT: In the production of the thermally stable polymethylsiloxane resin (KT (SKT) low-molecular cyclic dimethylsiloxanes are employed as the starting product. The influence of the starting products composition on the molecular weight and technological properties of the polymethyl disiloxane resin was not sufficiently investigated before. Polymerization of the binary mixtures of octamethyl cyclo-tetrasiloxane (M_2-4) and decamethyl cyclopentasiloxane (M_2-5) taken in the weight ratios 90:10, 70:30, 50:50, 30:70, 10:90 was performed by stirring in the presence of (a) 2% W/W concentrated H_2SO_4 for 5 hours at room temperature with subsequent introduction of 1% W/W of H_2O ; (b) 6% W/W aluminum sulfate dihydrate, taken as a 33%

Card 1/3

1102-65 EIT(c)/EMP(j)/ENT(m) Pc-4/Pr-4 RM
 ACCESSION NR: AP5001499 S/0138/64/000/012/0001/0007

AUTHOR: Borisov, S. N.; Kurlova, T. V.; Sviridova, N. G. B 15

TITLE: Synthesis and properties of isomeric polysiloxane rubbers

SOURCE: Kauchuk i rezina, no. 12, 1964, 1-7

TOPIC TAGS: dimethylsiloxane rubber, methylpropylsiloxane rubber, diethylsiloxane rubber, isomeric polymer, modified dimethylsiloxane

ABSTRACT: The effect of structure on the low-temperature and other properties of modified dimethylsiloxane rubber has been studied. For the synthesis of modified dimethylsiloxane (I) rubbers modified by replacing part of the methyl groups with methylpropylsiloxane groups were synthesized for the first time. The properties were compared with those of rubbers which were similarly modified with diethylsiloxane (II), and the properties of rubbers (III) and diethylsiloxane (IV) which differed only in the position of the Si atom in the silicon-carbon chain. Rubbers I and III, which contained various amounts and distributions of

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ACCESSION NR: AP5001499

modifying groups, were synthesized: 1) from condensation products of dimethyldichlorosilane and methylpropyldichlorosilane or from diethyldichlorosilane in 1/1 molar ratio in cyclic dimethylsiloxane at room temperature in the presence of H_2SO_4 ; 2) by polymerization of cyclic dimethylsiloxanes and cyclosiloxanes associated with siloxanes obtained from the hydrolysis products of methyl- and diethyldichlorosilane. The properties of rubbers II and III and their vulcanizates and the effect of the amount (4—10 mol%) of the introduction of modifying groups on these properties were studied in considerable detail. It was shown, in particular, that methylpropyl- groups lower the density and packing density of rubbers. The introduction of siloxane blocks into the backbone of rubber II leads to a decrease in the glass transition temperature. The properties of vulcanizates II and III are characterized by a higher tensile strength (34—39 kg/cm²) and lower elongation (180—250%), respectively. The properties of vulcanizates II (21—29 kg/cm² and 260—325%, respectively): fig. art. has: 3 figures and 6 tables.

Card 2/3

11-2-65

APPROVAL NO: AP5001499

Responsible nauchno-issledovatel'skiy institut sinteticheskogo
Responsible scientific research institute of Synthetic

SUBMITTED: 00

ENCL: 01

SUB CODE: MT

NO REF SOV: 015

OTHER: 002

ATD PRESS: 3165

Card 3/3

REF ID: A66111
 00191/55/000/006/0024/0028

AUTHOR: Borisov, S. N.; Sviridova, N. G.

TITLE: Heterocondensation synthesis of polysiloxanes containing peripheral trimethylsiloxy- $\text{Si}(\text{CH}_3)_3$

SOURCE: Plasticheskiye massy, no. 6, 1965, 24-28

TOPIC TAGS: polysiloxane, silicon polymer, elastomer, silicon rubber

ABSTRACT: Interest in expanding the useful temperature range of polydimethylsiloxanes led to attempts to modify them by replacing the Si -methyl groups with polar, unsaturated, and bulky groups such as $-\text{O}-\text{Si}(\text{CH}_3)_3$. The preparation of silicon-containing elastomers with peripheral trialkylsiloxy groups may yield elastomers with $\text{Si}(-\text{O}-)_4$ functions in the main chain, and with improved low-temperature properties resulting from disruption of the structure regularity by mobile R_3SiO groups. The reactions of a number of suitable compounds were investigated. Two new compounds were prepared. Methyl-(trimethylsiloxy)-diethoxysilane was obtained in 65% yield from the corresponding chlorosilane and ethanol in the presence of pyridine.

Card 1/2

ACCESSION NR: AP5014688

Methyl-(trimethylsiloxy)-dibutoxysilane was obtained in 67% yield from the corresponding dichloride and sodium butoxide, and in 83% yield from the corresponding dichloride and sodium butoxide. It was found that

CLASS: none

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 012

OTHER: 007

ATD PRESS: 4022

Card 2/2

I 21784-66 EWT(m)/EWP(j) RM

ACC NR: AP6002864

(A)

SOURCE CODE: UR/0286/65/000/024/0020/0020

AUTHORS: Borisov, S. N.; Sviridova, N. G.

ORG: none

TITLE: A method for obtaining acetoxysiloxanes. Class 12, No. 176893

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 20

TOPIC TAGS: siloxane, oligomer, organosilicon compound

ABSTRACT: This Author Certificate presents a preparative method for acetoxysiloxanes, based on the interaction of octamethylcyclotetrasiloxanes with acetic anhydride at high temperatures in the presence of a catalyst. To increase the yield and to obtain oligomers with 2 to 7 silicon atoms in the molecule, the reactants are mixed in the molar ratio of 1:2, and ferric chloride is used as the catalyst.

SUB CODE: 07/ SUBM DATE: 14Sep64

Card 1/1 OLR

UDC: 547.419.5.07

21(1),5(2)
AUTHORS:

SOV/89-7-2-2/24

Laskorin, B. N., Ul'yanov, V. S., Sviridova, R. A.,
Arzhatkin, A. M., Yuzhin, A. I.

TITLE:

Sorption Methods of Separating Barium From Radium, Aluminum
From Gallium, and Zirconium From Hafnium (Sorbtsionnyye metody
razdeleniya bariya i radiya, alyuminiya i galliya. tsirkoniya i
hafniya)

PERIODICAL:

Atomnaya energiya, 1959, Vol 7, Nr 2, pp 110-116 (USSR)

ABSTRACT:

For the separation of elements chemically close to each other
the chromatographical method was applied which due to its small
capacity cannot be applied on an industrial scale. The efficiency
of the method can be considerably increased by the use of an
appropriate complexformer, which decreases the active concentra-
tion of the ions to be separated; this would mean in first
approximation a decrease of the mass of the elements to be
separated. The difference in the formation constants of the
complex compounds increases the separation factor. It was
established that for the separation of barium and radium citric
acid, nitryltri- and ethylene diamine tetra acetic acid (EDTA)
as eluating agents can be used with best results. The separation

Card 1/4

Sorption Methods of Separating Barium From Radium,
Aluminum From Gallium, and Zirconium From Hafnium

SOV/89-7-2-2/24

factor was determined for 9 different kationites solved in different acids. Maximum separation factors were achieved under the following conditions: 1) use of hydrochloric acid. Kationite KU-2 with 8% latticelike polymerization, granulation 100-200 mesh, operational temperature 90°. The acid concentration is increased in the course of the experiment from 0.5 to 5.0 m. Elution speed 2 cm/min. Barium and radium are collected in the upper section of the column. The height of the kationite saturated with barium is 10% of the kationite's total height. 2) Use of citric acid. Kationite KU-2 granulation 100-200 mesh, 5% citric acid ammonia with a pH value of 8.0. Separation up to 20% of the kationite's total height. Elution speed 2 cm/sec. The exact results are given in a diagram. 3) Use of EDTA. By this method, described somewhat more in detail, it is possible to separate the whole radium from 100 kg of barium with a total volume of the kationite of 0.5 m³. Volume of the liquids 8 m³. The efficiency of the developed method is 50 kg/h per m² of the cross section of the column. For the separation of 1 kg of barium 0.01 kg of EDTA, 1.50 kg sodium lye and 1.2 kg hydrochloric acid is needed.

Card 2/4

Sorption Methods of Separating Barium From Radium,
Aluminum From Gallium, and Zirconium From Hafnium

SOV/89-7-2-2/24

to obtain metal gallium. Efficiency of the developed
installation: 50 kg/h gallium per m² of the cross section of
the column. There are 7 figures, 6 tables, and 10 references.

SUBMITTED: November 25, 1958

Card 4/4

Extracting properties of ...

S/830/62/000/001/009/012
E079/E192

of phases) of (2-ethylhexyl)phosphonic acids (used as 0.1M solutions in kerosene) were also determined. An addition to the organic phase of TBP or other neutral phosphoroorganic compounds or highmolecular alcohols sharply decreases the solubility of the extracting agents. It is concluded that the use of M2EHPPA is uneconomic due to its high solubility losses (4 g/litre). Under industrial conditions monoalkylphosphoric acids with a larger radical (C_{12} and above) should be used. Total losses of D2EHPPA (80-100 mg/litre) and of D2EHPPA - 20-35 mg/litre. On the addition of TBP or an alcohol, losses due to solubility can be reduced to 3-10 mg/litre and the consumption of the two reagents is mainly due to incomplete separation of phases. Studies of the extractive properties of the reagents indicated that: monoalkylphosphoric acids can be used for the separation of hexavalent uranium from phosphoric acid solutions with a concentration not exceeding 0.8M and sulphuric acid solutions with a concentration of up to 4M. On extraction of uranium from salts of the corresponding acids the distribution coefficients are considerably higher. Tetravalent uranium is better extractable than the hexavalent.

Card 2/3

LASKORIN, B.N.; UL'YANOV, V.S.; SVIRIDOVA, R.A.

Extraction of molybdenum and tungsten from aqueous solutions.

Zhur.prikl.khim. 35 no.11:2409-2414 N '62.

(MIRA 15:12)

(Molybdenum—Analysis)

(Tungsten—Analysis)

UL'YANOV, V.S.; SVIRIDOVA, R.A.

Dissociation, dimerization, and distribution of di(2-ethylhexyl)
phosphoric acid in the system octane- O, 1 M solution of NaClO_4 .
Radiokhimiia 5 no.4:419-424 '63. (MIRA 16:10)

(Phosphoric acid) (Extraction (Chemistry))

UL'YANOV, V.S.; SVIREDOVA, R.A.

Disociation, dimerization, and distribution of dibutylphosphoric,
dihexylphosphoric, and dioctylphosphoric acids in the system
n-octane - 0.1 M NaClO_4 - HClO_4 solution. Radiokhimiya 7 no.5:538-
544 '65. (MIRA 18:10)

LASKORIN, B.N.; UL'YANOV, V.S.; SVIRIDOVA, R.A.

Extraction of vanadium by trioctylamine and di-(2-ethylhexyl)
phosphoric acid. Zhur. prikl. khim. 38 no.5:1133-1136 My '65.
(MIRA 18:11)